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## IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :

STEFAN UHRLANDT, ET AL. : EXAMINER: QIAN, Y.

SERIAL NO: 10/516,308 :

FILED: DECEMBER 14, 2005 : GROUP ART UNIT: 1793

FOR: ALUMINUM-CONTAINING PRECIPITATED SILICIC ACID HAVING AN ADJUSTABLE BET/CTAB RATIO

## REPLY BRIEF

COMMISSIONER FOR PATENTS ALEXANDRIA, VIRGINIA 22313

SIR:

The following Reply Brief is in reply to the Examiner's Answer dated December 9, 2009 (Answer).

The statement of the grounds of the rejection (Answer at 3-7) is identical to the statement in the Final Rejection, which has already been responded to in the Appeal Brief. The following is in reply to the Response to Argument (Answer at 7-9).

## Ground (A)

In response to Applicants' argument in the Appeal Brief that the Examiner has picked limitations that support the holding of obviousness while unreasonably ignoring limitations that support a holding of non-obviousness, the Examiner finds "the parameters of the precipitated silica taught by Blume et al overlap with the present application, except CTAB surface area. Although it is outside of the claimed range (80-139 m²/g of Blume vs. 145-350

m<sup>2</sup>/g of present application), further variations and modifications of the foregoing will be apparent to those in the art (Blume et al. col. 13, lines 39-41)" (Answer at 7; emphasis by the Examiner).

In reply, the description at column 13, lines 39-41 is a typical boilerplate paragraph inserted into countless patent applications. However, while it evidences an intent of the patentee, it does not change the specific disclosure therein. As Applicants have already pointed out in the Appeal Brief, Blume et al actually prefers a maximum CTAB surface area of 130 m²/g and thus teaches away from the presently-recited minimum of 145 m²/g. Indeed, the Examiner has not commented at all on Applicants' argument at page 5 of the Appeal Brief that in order to maintain a BET/CTAB ratio both within the terms of the present claims and the range required by Blume et al, it would be impossible, in effect, to operate at a CTAB surface area as high as the presently-recited minimum of 145 m²/g.

The Examiner finds that one of ordinary skill in the art "would at once envisage the different CTAB values between Blume et al. and Bomal et al., and would have been able to optimize the CTAB value and adjust the ratio of BET/CTAB accordingly based on preference or other requirement, as the CTAB and BET/CTAB ratio are obviously related" (Answer at 7).

In reply, the issue is not what one of ordinary skill in the art would **envisage**. Rather, the issue is whether the presently-claimed invention would have been obvious over the combination of <u>Blume et al</u> and <u>Bomal et al</u>. Applicants have already pointed out in the Appeal Brief why one of ordinary skill in the art would not have combined <u>Blume et al</u> and <u>Bomal et al</u> but even if combined, the result would not have been the presently-claimed invention. Note additionally that <u>Blume et al</u> and <u>Bomal et al</u> go in opposite directions with regard to CTAB surface area. <u>Blume et al</u> discloses a maximum of 139 m<sup>2</sup>/g, preferably 130 m<sup>2</sup>/g, as discussed above. On the other hand, <u>Bomal et al</u> discloses a minimum CTAB

surface area of 140 m<sup>2</sup>/g, and preferably 145 m<sup>2</sup>/g (column 8, lines 13-15). Thus, as broadly disclosed, the CTAB specific surface areas of <u>Blume et al</u> and <u>Bomal et al</u> do not overlap and preferably diverge further from overlapping.

The Examiner finds that the combination of <u>Bomal et al</u> and <u>Blume et al</u> "is motivated by the fact the resulting precipitated silica has excellent dispersibility and very satisfactory reinforcing prosperities [sic] in rubber mixture. Since both of them teach the composition of precipitated silica and apply precipitated silica into rubber mixture, one would have a reasonable expectation of success. Therefore, the *prima facie* obviousness has been established. [Citations omitted]" (Answer at 8).

In reply, one of ordinary skill in the art could not have predicted the properties of, in effect, the presently-claimed precipitated silica, because one of ordinary skill in the art would not have combined <u>Blume et al</u> and <u>Bomal et al</u>. There is **no** *prima facie* case of obviousness because one of ordinary skill in the art would not have combined <u>Blume et al</u> and <u>Bomal et al</u>, but even if combined, the result would not be the presently-claimed invention.

Regarding Claim 23, what has been stated above with regard to the rejection of the other claims over <u>Blume et al</u> and <u>Bomal et al</u> apply herein as well. As pointed out in the Appeal Brief, the BET surface area range recited in Claim 23 is even further removed from any subject matter that might result from a combination of <u>Blume et al</u> and <u>Bomal et al</u>.

Prior to the below discussion of the separate patentability of Claims 19 and 20 under Ground (A), Applicants note that the Examiner responds to this argument under Ground (B), beginning at the first full paragraph of page 9.

Regarding these claims, the Examiner finds that the combination of <u>Blume et al</u> and <u>Bomal et al</u> "teach the same precipitated silica as the recited claims. Both of them apply precipitated silica into rubber (tire) (Blume et al. Example 1, col. 9, lines 19-44, and col. 6, line 52-col. 7, line 14; and Bomal et al. col. 17, line 5, Example 8)" (Answer at 9). The

Examiner then cites case precedent with regard to the interpretation of product-by-process limitations (id.).

In reply, <u>Blume et al</u> and <u>Bomal et al</u> individually evidence the fact that properties of the type recited in the present claims, such as BET and CTAB surface areas, and their ratio, are dependent on the process conditions for making a precipitated silica. The process recited in Claims 19 and 20 is different from the process disclosed by <u>Blume et al</u>, and the process disclosed by <u>Bomal et al</u>. The Examiner has not explained how, and based on what teaching, either the process of <u>Blume et al</u> or the process of <u>Bomal et al</u> would be modified in order to arrive at the claimed precipitated silica of these claims.

For all the above reasons, Applicants continue to maintain that the rejection be REVERSED.

## Ground (B)

The Examiner states that "[f]or the purposes of Compact Prosecution, the Examiner interpreted these claims [Claims 19 and 20] to be dependent on the claim 1, as the claimed Vulcanizable rubber mixture or vulcanizates comprising the same precipitated silica as the instant claim 1" (Answer at 9).

In reply, the Examiner's interpretation is obviously incorrect. Nevertheless, there is no indefiniteness in Claims 19 and 20. Accordingly, it is respectfully requested that this rejection be REVERSED.

Applicants continue to maintain that all of the rejections should be REVERSED.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

Norman F. Oblon

Customer Number

22850

Tel: (703) 413-3000 Fax: (703) 413 -2220 (OSMMN 03/06)

NFO:HAP\

Registration No. 38,779